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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,276	11/26/2003	Shunji Aoki	4710-0104P	5459

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EXAMINER

PENG, KUO LIANG

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 07/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/721,276

Applicant(s)

AOKI, SHUNJI

Examiner

Kuo-Liang Peng

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/18/05 Amendment.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Applicants' amendment filed on April 18, 2005 was received.

Claims 1 and 3 are amended.

2. Claim rejection(s) under 35 USC 112 in the previous Office Action (Paper No. 0105) is/are removed.

3. The indicated allowability of Claims 1-6 is withdrawn in view of the new ground rejection/new reference. Rejections based on the new ground/new reference follow. Examiner apologizes for causing any inconvenience.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the

Art Unit: 1712

United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Melancon (US 6 730 397).

Melancon discloses a tape comprising a silicone pressure sensitive tape adhesive that comprises a polydiorganosiloxane polyurea copolymer, a silicone tackifying resin and a hindered amine light stabilizer (HALS). Note the polydiorganosiloxane polyurea copolymer can contain vinyl groups. A crosslinking agent such as a peroxide curative can be used. (col. 1, lines 34-45, col. 3, line 56 to col. 4, line 30, col. 6, line 65 to co. 8, line 17, col. 9, lines 38-44, col. 10, lines 19-32, col. 11, lines 26-54 and col. 13, lines 2-20 and Examples) The M/Q ratio of the silicone tackifying resin is described in col. 2, lines 55-65 and Examples. The amount of each components can be further exemplified in Examples. Note that the polydiorganosiloxane polyurea copolymer reads on component A) of the present invention.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the

Art Unit: 1712

subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melancon.

Melancon discloses a tape comprising a silicone pressure sensitive tape adhesive, supra, which is incorporated herein by reference. Melancon further teaches the use of a polydiorganosiloxane polyurea copolymer containing diphenylsiloxy units, dimethylsiloxy units, etc. (col. 9, lines 38-44) Melancon is silent on the amount of the diphenylsiloxy units. However, the amount of the diphenylsiloxy units can affect the physical properties of the adhesive, such as glass transition temperature, modulus, etc. that are important to an adhesive. In other words, the amount of the diphenylsiloxy units is a Result-Effective variable. Therefore, it would have been obvious to one of ordinary skilled in the art at the time of the invention was made to utilize a polydiorganosiloxane polyurea copolymer containing whatever amount of diphenylsiloxy units through routine experimentation in order to afford an adhesive with desired physical properties. Especially, Applicants do not show the criticality of the amount of diphenylsiloxy units. See MPEP 2144.05 (II).

8. Claims 3-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melancon in view of Schmidt (US 5 248 739).

For Claims 3 and 6, Melancon discloses a tape comprising a silicone pressure sensitive tape adhesive that comprises a polydiorganosiloxane polyurea copolymer, a silicone tackifying resin and a hindered amine light stabilizer (HALS). Note the polydiorganosiloxane polyurea copolymer can contain vinyl groups. (col. 1, lines 34-45, col. 3, line 56 to col. 4, line 30, col. 6, line 65 to col. 8, line 17, col. 9, lines 38-44, col. 10, lines 19-32, col. 11, lines 26-54 and col. 13, lines 2-20 and Examples) The M/Q ratio of the silicone tackifying resin is described in col. 2, lines 55-65 and Examples. The amount of each component can be further exemplified in Examples. A crosslinking agent such as a Si-H containing agent and additional hydrosilylation curatives can be used. (col. 10, lines 19-32) Melancon is silent on the specific crosslinking agent and a platinum catalyst set forth in the instant claim. However, it is well known to utilize a Si-H containing polyorganosiloxane as a crosslinker and a platinum catalyst in a silicone pressure sensitive composition. For example, Schmidt teaches the use of a crosslinking agent of Si-H containing polyorganosiloxane and a platinum catalyst in a silicone pressure sensitive composition. The motivation of using

Art Unit: 1712

the Si-H containing polyorganosiloxane/platinum catalyst is to effectively convert the composition from normally flowable state to a non-flowable state. (col. 7, lines 6-13, col. 8, lines 16-27, col. 14, line 59 to col. 15, line 29 and Examples) The SiH/Si-alkenyl ratio and the amount of platinum are further exemplified in Examples. In light of the benefit mentioned, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize Schmidt's Si-H containing polyorganosiloxane/platinum catalyst in Melancon's composition.

Especially, Schmidt is in the same field as that of the Melancon's endeavor. For Claim 4, Melancon further teaches the use of a polydiorganosiloxane polyurea copolymer containing diphenylsiloxo units, dimethylsiloxo units, etc. (col. 9, lines 38-44) Melancon is silent on the amount of the diphenylsiloxo units. However, the amount of the diphenylsiloxo units can affect the physical properties of the adhesive, such as glass transition temperature, modulus, etc. that are important to an adhesive. In other words, the amount of the diphenylsiloxo units is a Result-Effective variable.

Therefore, it would have been obvious to one of ordinary skilled in the art at the time of the invention was made to utilize a polydiorganosiloxane polyurea copolymer containing whatever amount of diphenylsiloxo units through routine experimentation in order to afford an adhesive with desired

physical properties. Especially, Applicants do not show the criticality of the amount of diphenylsiloxo units. See MPEP 2144.05 (II).

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melancon in view of Schmidt as applied to Claims 3-4 and 6 above, and further as evidenced by De Paolo (US 3 509 241).

Melancon further teaches the use of IRGANOX 1076 as an antioxidant in Examples. Note that De Paolo teaches that IRGANOX 1076 is a phenolic antioxidant. (Example VII)

10. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt in view of Melancon.

For Claims 1, 3 and 6, Schmidt discloses a tape comprising a silicone pressure sensitive adhesive that comprises A) a MQ resin, B) a polydiorganosiloxane containing alkenyl groups, C) a crosslinking agent such as organic peroxides and organohydrogenpolysiloxane/platinum catalyst/optionally an inhibitor. (col. 1, line 66 to col. 2, line 42, col. 3, line 4 to col. 9, line 2, col. 10, lines 33-44 and Examples) The M/Q ratio, the Si-H/Si-alkenyl ratio and the amounts of all components are further exemplified in Examples. A stabilizer can be used. Schmidt is silent on the

Art Unit: 1712

specific stabilizer used. However, it is well known to use a HALS stabilizer in a silicone pressure sensitive adhesive. For example, Melancon teaches the use of a HALS stabilizer in a silicone pressure sensitive adhesive. The amount of HALS stabilizer can be further exemplified in Examples. The motivation of use the HALS stabilizer is to provide light protection. (col. 13, lines 2-20 and Examples) In light of the benefit mentioned, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate Melancon's HALS stabilizer into Schmidt composition. Especially, Melancon is in the same field as that of the Schmidt's endeavor. For Claims 2 and 4, Component B) are further exemplified in col. 6, lines 21-42 and col. 14, lines 1-58. For Claim 5, Schmidt further teaches the use of an antioxidant. (col. 9, line 67 to col. 10, line 4) Schmidt is silent on the specific use of a phenolic antioxidant. However, it is well known to use a phenolic antioxidant in a silicone pressure sensitive adhesive. For example, Melancon teaches the use of a phenolic antioxidant such as IRGANOX 1076 in a silicone pressure sensitive adhesive. The amount of HALS stabilizer can be further exemplified in Examples. The motivation of use the phenolic antioxidant is to provide aging protection. (col. 18, lines 34-35 and Examples) In light of the benefit mentioned, it would have been obvious to one of ordinary skill in

Art Unit: 1712

the art at the time of the invention was made to incorporate Melancon's phenolic antioxidant into Schmidt composition. Especially, Melancon is in the same field as that of the Schmidt's endeavor.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 1712

klp

July 5, 2005

A handwritten signature in black ink, appearing to read 'Kuo-Liang Peng', written in a cursive style.

Kuo-Liang Peng
Primary Examiner
Art Unit 1712